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SURFACE TRANSPORTATION BOARD

STB Ex Parte No. 558 (Sub-No. 5)

RAILROAD COST OF CAPITAL — 2001

Decided: June 14, 2002

Upon review of the evidence tendered in this proceeding, the Board finds that in 2001, the railroad industry had a composite after-tax cost of capital of 10.2%, based on: (1) a current cost of debt of 6.9%; (2) a current cost of common equity capital of 12.8%; (3) a cost of preferred equity capital of 6.3%; and (4) a capital structure mix of 41.8% debt, 56.0% common equity, and 2.2% preferred equity capital.

BY THE BOARD:

One of the Surface Transportation Board's regulatory responsibilities is the annual determination of the railroad industry's cost of capital. This determination is one component used in evaluating the adequacy of railroad revenues each year under the procedures and standards mandated by Congress in the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act) and promulgated in *Standards for Railroad Revenue Adequacy*, 364 I.C.C. 803 (1981), revised, 3 I.C.C.2d 261 (1986). This finding may also be used in other regulatory proceedings, including, but not necessarily limited to, those involving the prescription of maximum reasonable rate levels, the proposed abandonment of rail lines, and the setting of compensation for disputed trackage rights fees.

The most recent determination of the railroad industry's cost of capital was for the year 2000, in *Railroad Cost of Capital - 2000*, STB Ex Parte No. 558 (Sub-No. 4) (STB served July 2, 2001) (*Cost 00*). The instant proceeding, instituted in *Railroad Cost of Capital — 2001*, STB Ex Parte No. 558 (Sub-No. 5) (STB served Dec. 21, 2001), updates the railroad industry's cost of capital for the year 2001.

The only party to provide evidence in this proceeding was the Association of American Railroads (AAR). The AAR concluded that the composite after-tax cost of capital for the railroad industry for 2001 was 10.22%, significantly lower than the 2000 cost of capital rate of 11.0%.

Consistent with previous cost of capital proceedings, the AAR determined the overall railroad industry cost of capital rate using a "composite railroad" consisting of Class I carriers

controlled by selected major railroad holding companies. The AAR's selection of these companies was based on criteria developed in *Railroad Cost of Capital — 1984*, 1 I.C.C.2d 989 (1985).<sup>1</sup> The following companies that met these criteria are included: Burlington Northern Santa Fe Corporation (BNSF), CSX Corporation (CSX), Norfolk Southern Corporation (NSC), and the Union Pacific Corporation (UPC).<sup>2</sup>

As discussed below, we have examined the procedures used by the AAR to determine the following for 2001: (1) the railroad industry's current cost of debt capital; (2) its cost of common equity capital; (3) its cost of preferred equity capital; (4) its capital structure mix; and (5) the composite after-tax railroad industry cost of capital. We have determined that the 2001 railroad cost of capital is 10.2%.

## DEBT CAPITAL

The AAR developed its 2001 current cost of debt using bond price data from Standard & Poor's Corporation *Bond Guide* and a Standard and Poor's data base. The AAR's cost of debt is based on the market value yields of the major forms of long-term debt instruments for the sample railroad holding companies listed above. These debt instruments include: (1) bonds, notes, and debentures (bonds); (2) equipment trust certificates (ETCs); and (3) conditional sales agreements (CSAs). The yields of these debt instruments are weighted based on their market values.

### *Cost of Bonds, Notes, and Debentures (Bonds)*

The AAR used data contained in Standard & Poor's *Bond Guide* for the current cost of bonds, based on monthly prices and yields during 2001, for all issues (a total of 73) that were publicly traded during the year. To determine the current (2001) market value of bonds, the AAR used these traded bonds and 62 additional bonds that were outstanding but not traded during 2001.<sup>3</sup> Continuing the procedure in effect since 1988, the AAR based the market value on monthly prices for all traded bonds and the face or par value (\$1,000) for all bonds not traded during the year. The AAR computed the total market value of all outstanding bonds to be \$21.94

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<sup>1</sup> These criteria are as follows: (1) the company is listed on either the New York or American Stock Exchange; (2) the company paid dividends throughout the year; (3) the company's rail assets are greater than 50% of its total assets; and (4) the company has a debt rating of at least BBB (Standard & Poor's) and Baa (Moody's).

<sup>2</sup> These are the same companies included by the AAR and used in our 2000 cost of capital decision, *Cost 00*.

<sup>3</sup> In its computation of the total value of bonds, the AAR did not include 9 UPC and 3 NSC bonds, even though these were shown in various parts of its workpapers. We have included the value of these bonds in our calculations.

billion. Based on the yields for the traded bonds, the AAR calculated the weighted average 2001 yield for all bonds to be 6.79%.

We have examined the AAR's bond price and yield data and have made numerous modifications to the data submitted.<sup>4</sup> We have recalculated the market value of all outstanding bonds to be \$22.83 billion. We have also recalculated the weighted average 2001 yield for all bonds to be 6.80%. These recalculations and data for all bonds are shown in Tables 1 and 2 of the Appendix.

#### *Cost of Equipment Trust Certificates (ETCs)*

ETCs are not actively traded on secondary markets. Therefore, their costs must be estimated by comparing them to the yields of other debt securities that are actively traded. Following the practice in previous cost of capital proceedings, the AAR used government securities with maturities similar to these ETCs as surrogates for determining yields. After determining the 2001 yields for these government securities, the AAR added basis points<sup>5</sup> to these yields to compensate for the additional risks associated with the ETCs.

One new ETC was issued during 2001, (by NSC).<sup>6</sup> There were 50 ETCs issued prior to 2001 that were outstanding during the year. The AAR determined that the yield spread for ETCs was 114 basis points higher than the yield for government bonds.<sup>7</sup> Using the yield spreads, the AAR calculated the weighted average cost of ETCs to be 5.96%<sup>8</sup> and their market value to be \$1.952 billion for 2001.<sup>9</sup>

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<sup>4</sup> These changes include the addition of the 12 bonds discussed in footnote 3, as well as other corrections to account for new issues or miscalculations by the AAR. These corrections are detailed in footnotes to Tables 1 and 2 in the Appendix.

<sup>5</sup> A basis point equals 1/100th of a percentage point.

<sup>6</sup> The AAR indicated in its pleading that no new ETCs were issued during 2001. However, an examination of the AAR's workpapers reveals that NSC did, in fact, issue a new ETC (Series K) on 3/27/2001. This ETC was included in the AAR's totals.

<sup>7</sup> This figure is 57 basis points lower than the 171 basis point spread used in 2000.

<sup>8</sup> This is substantially lower than the 2000 figure of 7.9%.

<sup>9</sup> The AAR has approximated the market values of ETCs using the same procedures used in previous cost of capital determinations. These procedures are based on the use of standard security industry formulas found in *Standard Security Calculation Methods*.

We have analyzed the ETC cost and market value evidence supplied by the AAR and have made an adjustment to the market value figure which the AAR computed.<sup>10</sup> This adjustment results in a slightly higher market value of \$1.98 billion. Our calculations show no difference in the average yield of 5.96%. A summary of our ETC computations is shown in Table 3 in the Appendix.

#### *Cost of Conditional Sales Agreements (CSAs)*

CSAs represent a small fraction (less than 1%) of total railroad debt. The cost of CSAs, however, can be estimated. The AAR used the yield spread between CSAs and ETCs for 1997 (the last year when a new CSA was issued) of 32 basis points to develop the year 2001 yield spread between CSAs and government bonds. This results in 146 basis points being added to government bond yields to develop the cost of CSAs.<sup>11</sup> Using this yield spread, and adding the 146 basis points for government bonds, the AAR determined the weighted average cost of CSAs for 2001 to be 6.26%. The AAR determined the market value for CSAs to be \$0.186 billion.<sup>12</sup> We have examined the cost and market value of the CSAs using the AAR's data, and have determined that the AAR computed the interest rate and market value of CSA's correctly. The results of these computations are shown in Table 4 in the Appendix.

#### *Miscellaneous Debt and Capitalized Leases*

As in previous cost of capital determinations, the AAR excluded the costs of capitalized leases and miscellaneous debt in its computation of the overall current cost of debt because these costs are not directly observable in the open market. Also in keeping with past practice, the AAR included the book value of leases and commercial paper in the overall market value of debt, which is used to determine the railroads' capital structure mix. The AAR noted that the cost of capitalized leases is generally higher than that of other debt, but it did not make any upward correction for the cost of those leases. The AAR determined that the market value for

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<sup>10</sup> The AAR used end-of-year values for BNSF's ETCs and average values for the ETCs of the other carriers. Average values should also have been used for BNSF. Our adjustment addresses this issue.

<sup>11</sup> This yield spread equals the yield spread for ETCs vs. government bonds of 114 basis points plus the yield spread between ETCs and CSAs of 32 basis points.

<sup>12</sup> The AAR approximated the market values of CSAs using the same procedures used in previous cost of capital determinations. These procedures are based on the use of standard security industry formulas found in *Standard Security Calculation Methods*.

the capitalized leases and miscellaneous debt was \$3.937 billion for 2001.<sup>13</sup> We have examined the AAR's work papers and other evidence and have adjusted this figure to \$3.891 billion.<sup>14</sup> Table 5 in the appendix shows our recalculations for capitalized leases and miscellaneous debt.

#### *Total Market Value of Debt*

The AAR determined that the total market value for all debt during 2001 was \$28.015 billion. Due to our adjustments discussed previously, we have recomputed the total market value for all railroad debt in 2001 to be \$28.886 billion.<sup>15</sup>

#### *Flotation Costs of Debt*

As in past cost of capital decisions, the AAR's calculation of the current cost of debt included a flotation cost factor consisting of costs associated with the issuance of new debt such as underwriters' fees, advertising costs, and legal fees. The AAR determined that flotation costs for debt equaled 0.16%. We have reviewed the AAR's calculations concerning flotation costs and find that the cost factors developed for the various components of debt are reasonable.<sup>16</sup>

#### *Overall Current Cost of Debt*

The AAR concluded that the railroads' current cost of debt for 2001 was 6.88%. Our calculations produce a slightly higher figure (6.89%), rounded to 6.9%.<sup>17</sup> Our calculations are shown in Table 8 in the Appendix.

### COMMON EQUITY CAPITAL

In previous cost of capital decisions, we have determined the cost of common equity using the Discounted Cash Flow (DCF) method. The AAR submitted evidence as to the current

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<sup>13</sup> This consists of \$2.6 billion capitalized leases and \$1.337 billion miscellaneous debt.

<sup>14</sup> Our adjustment is based on various recalculations for miscellaneous debt instruments and capital leases based on submissions by the railroads contained in the AAR's workpapers.

<sup>15</sup> See Table 6 in the Appendix for a complete breakdown of the market value of debt.

<sup>16</sup> See Table 7 in the Appendix for these calculations. The AAR's flotation cost factors are based on data developed by Salomon Brothers for ETCs and studies by the Securities and Exchange Commission concerning flotation costs for issuances of new bonds. The estimated flotation cost for CSAs is the same as that used in prior proceedings.

<sup>17</sup> This is significantly lower than the 2000 cost of debt (8.0%).

cost of equity capital using this procedure. This evidence is virtually identical to that furnished by the AAR in previous cost of capital proceedings.

### *Market Value of Common Equity*

The AAR calculated the 2001 market value of common equity by multiplying the number of shares outstanding by the daily closing price for each trading day during the year for each of the sample railroad holding companies. The AAR determined that the average market value for the year 2001 was \$38.682 billion. We have reviewed the AAR's calculations and have determined that this number is correct. Table 9 in the Appendix shows the calculations of the average market value of common equity and relative weights for each railroad.

### *Discounted Cash Flow (DCF) Method*

The DCF method of determining the cost of common equity is used by the majority of state regulatory agencies and has been used by the Interstate Commerce Commission (ICC) and the Board for many years. Under the DCF method, the cost of common equity is the discount rate that makes the present value of expected returns from holding a stock (dividends and price appreciation) equal to the current market value of that stock. The DCF method considers two variables — dividend yield and expected growth in earnings per share.<sup>18</sup>

#### *Dividend Yield*

The AAR computed the 2001 average dividend yield for the composite group of railroads using the same method that it employed in past cost of capital determinations, *i.e.*, weighting

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<sup>18</sup> In *Railroad Cost of Capital - 1982*, 367 I.C.C. 662 (1983), the ICC developed the following DCF formula:

$$K = [D_{(0)} \times (1 + g/2) / P_{(0)}] + g, \text{ where:}$$

K = cost of common equity  
 $D_{(0)}$  = annual dividend  
 $P_{(0)}$  = current stock price  
 g = expected growth rate

This formula assumes that, at the start of the year, an investor would require a return on equity (K) equal to  $[D_{(0)} / P_{(0)}] + g$ , where  $D_{(0)} / P_{(0)}$  represents the average dividend yield expected for the year and g represents an estimate of the expected growth rate. At the end of the year, the investor would be concerned with projected returns for the following year and would require a K equal to  $[D_{(0)} \times (1 + g) / P_{(0)}] + g$ , which would allow for dividend growth for the following year. The average of these two formulas produces this DCF formula.

each company's monthly dividend yield on the basis of its prorated share of the total market value for the composite for each day during that month based on daily closing prices. The AAR developed a composite dividend yield of 1.68% for 2001. Our examination of the data submitted by the AAR revealed several minor discrepancies in its calculations. Correcting for these discrepancies results in our recomputation of the dividend yield to be 1.66%. This figure is substantially lower than the 2000 dividend yield (3.07%).<sup>19</sup> Our calculations of the dividend yield are shown in Table 10 in the Appendix.

### *Growth Rate*

The AAR used the earnings per share growth rate forecasts published monthly by the Institutional Brokers Estimate System (IBES) throughout 2001.<sup>20</sup> The AAR developed growth rates for each of the railroad holding companies that make up the composite by averaging the IBES forecasts for that company. It then weighted each company's growth rate according to its prorated share of the market value of the total railroad composite to arrive at a single projected growth rate. The AAR concluded that this composite growth rate was 11.03%, based on a truncated average of the forecasts.<sup>21</sup> After making some minor adjustments to the AAR's data, we have determined the truncated composite growth rate to be 11.00%. This is 0.33 of a percentage point higher than the 10.67% growth rate developed in the 2000 cost of capital decision. Our growth rate calculations are shown in Tables 11 (truncated) and 12 (nontruncated) of the Appendix.

### *Flotation Costs*

As with the issuance of new debt instruments, flotation costs are also incurred with the issuance of new equity securities. In *Adequacy of Railroad Revenue (1979 Determination)*, 363 I.C.C. 344, 352 (1979), the ICC concluded that flotation costs for equity capital should not be considered unless new equity had, in fact, been issued. This conclusion has been reaffirmed in

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<sup>19</sup> The large difference in dividend yield is attributable to the fact that the average market value of railroad common stock for the four study frame companies increased by almost \$7 billion between 2000 and 2001, as well as to the fact that the dollar amounts of dividends per share for NSC declined significantly.

<sup>20</sup> As has been the case since the findings in *Railroad Cost of Capital - 1987*, 4 I.C.C.2d 621 (1988), we have relied on the use of consensus analyst 5-year earnings per-share growth rate data published by IBES to develop the growth rate estimates used in the DCF approach. IBES data include growth rate estimates from essentially all major brokerage firms.

<sup>21</sup> IBES provides a simple average, the highest forecast, and the lowest forecast for each railroad. The AAR excluded the highest and lowest forecasts to arrive at the truncated average. This is the same procedure that has been followed in previous cost of capital determinations.

subsequent cost of capital decisions. Because no railroad issued any new common equity capital during 2001, no flotation cost factor has been included in the DCF formula.

### *Conclusion - Cost of Common Equity Capital*

Using a truncated average IBES growth rate ( $g$ ) forecast of 11.03%, a dividend yield ( $D_{(0)}/P_{(0)}$ ) of 1.68%, and the Board's DCF formula, the AAR determined the cost of common equity for 2001 to be 12.80%. Even with our slight adjustments to the AAR's data, our computation of the cost of common equity, when rounded, equals 12.8%. This figure is 1.1 percentage points lower than the cost of common equity for 2000 (13.9%).<sup>22</sup>

## PREFERRED EQUITY

Preferred equity has some of the characteristics of debt and some of the characteristics of equity. Essentially, preferred issues are like common stocks in that they have no maturity dates and represent ownership in the company (usually with no voting rights attached). They are like debt in that they usually have fixed dividend payments (akin to interest payments).

The AAR examined the two preferred stock issues of the sample railroad holding companies,<sup>23</sup> and determined their cost using the dividend yield method (dividends divided by market price). The AAR computed the market value of preferred stock by multiplying the average quarterly price for each issue by the number of shares outstanding during the quarter. This is the same procedure used in previous cost-of-capital determinations. The AAR computed the market value of preferred equity during 2001 to be \$1.533 billion. This is virtually identical to the figure for 2000. The AAR computed the cost of preferred equity to be 6.26%, slightly lower than the 6.28% figure for 2000.

We have determined that the AAR's computations are correct. Table 14 in the Appendix contains the calculations of the cost of preferred equity, rounded to 6.3%.

## CAPITAL STRUCTURE MIX

Our computations of market values and the capital structure mix for 2001 are shown in Table 15 in the Appendix. We have determined that the market value of bonds, preferred stock, and common equity for 2001 was \$69.1 billion. The percentage share of common equity increased sharply from 52.1% in 2000 to 56.0% in 2001, due to significant increases in the market value of the railroads' common stock during the year. The percentage share of debt

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<sup>22</sup> See Table 13 in the Appendix for our calculation of the cost of common equity.

<sup>23</sup> The two railroad holding companies with preferred stock are NSC and UPC.

accordingly decreased from 45.4% in 2000 to 41.8% in 2001. The percentage share of preferred equity decreased slightly from 2.5% in 2000 to 2.2% in 2001.

### COMPOSITE COST OF CAPITAL

Based on the evidence furnished in the record, and our adjustments to that evidence discussed above, we conclude that the 2001 composite after-tax cost of capital for the railroad industry, as set forth in Table 16 in the Appendix, was 10.2%. The procedure used to develop the composite cost of capital is consistent with the Statement of Principle established by the Railroad Accounting Principles Board: "Cost of capital shall be a weighted average computed using proportions of debt and equity as determined by their market values and current market rates."<sup>24</sup> The 2001 cost of capital is 0.8 percentage point lower than the 2000 cost of capital (11.0%).

### CONCLUSIONS

*We find that for 2001:*

1. The current cost of railroad debt equals 6.9%.
2. The cost of common equity equals 12.8%.
3. The cost of preferred equity equals 6.3%.
4. The capital structure mix of the railroads equals 41.8% debt, 56.0% common equity, and 2.2% preferred equity.
5. The composite railroad industry cost of capital equals 10.2%.

### Environmental and Energy Considerations

We conclude that this action will not significantly affect either the quality of the human environment or the conservation of energy resources.

### Regulatory Flexibility Analysis

Pursuant to 5 U.S.C. 605(b), we conclude that our action in this proceeding will not have a significant economic impact on a substantial number of small entities. The purpose and effect of the action are merely to update the annual railroad industry cost of capital finding. No new reporting or other regulatory requirements are imposed, directly or indirectly, on small entities.

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<sup>24</sup> Railroad Accounting Principles Board *Final Report*, Vol. 1, (1987).

It is ordered:

1. This decision is effective on June 20, 2002.
2. This proceeding is discontinued.

By the Board, Chairman Morgan and Vice Chairman Burkes.

Vernon A. Williams  
Secretary

**APPENDIX**

**Table 1**  
**2001 Traded & Untraded Bonds / Market Value By Company**

<b>Railroad</b>	<b>Traded vs Untraded</b>	<b>Number</b>	<b>Market Value (\$ in 000)</b>	<b>% Market Value to All Bonds</b>
BNSF	Traded <sup>1</sup>	27	\$4,386,147	92.27%
	Untraded <sup>2</sup>	9	367,438	7.73%
	Total	36	4,753,585	
CSX	Traded	11	\$1,546,395	29.06%
	Untraded <sup>3</sup>	21	3,775,894	70.94%
	Total	32	5,322,289	
NSC	Traded <sup>4</sup>	17	\$6,598,569	96.61%
	Untraded	5	231,450	3.39%
	Total	22	6,830,019	
UPC	Traded <sup>5</sup>	18	\$4,411,166	74.47%
	Untraded <sup>6</sup>	27	1,512,396	25.53%
	Total	45	5,923,562	
<b>COMPOSITE</b>	Traded	73	\$16,942,277	74.21%
	Untraded	62	5,887,178	25.79%
	Total	135	22,829,455	

<sup>1</sup> Includes 1 bond issued during 2001, prorated based on date of issue.

<sup>2</sup> Includes 1 bond issued during 2001, prorated based on date of issue.

<sup>3</sup> Includes 3 bonds, with a total value of \$4.594 million inadvertently excluded by the AAR.

<sup>4</sup> Includes 2 bonds issued during 2001, prorated based on date of issue. Also makes a minor correction to the AAR's value of 1 bond (\$1.29 million).

<sup>5</sup> Includes 2 bonds issued during 2001, prorated based on date of issue. The AAR failed to make these prorations.

<sup>6</sup> Includes 9 bonds (1 of which is a prorated new issue) with a total value of \$1.1315 billion, inadvertently excluded by the AAR.

**Table 2**  
**Calculation of 2001 Value and Cost of Bonds, Notes, & Debentures**

<b>Railroad</b>	<b>Number of Traded Issues</b>	<b>Market Value Traded Issues (\$000)</b>	<b>Current Cost</b>	<b>Weighted Cost</b>
BNSF	27	\$4,386,147	6.93%	1.79%
CSX	11	1,546,395	6.77%	0.62%
NSC	17	\$6,598,569	6.81%	2.65%
UPC	18	4,411,166	6.67%	1.74%
<b>Composite</b>	<b>73</b>	<b>\$16,942,277</b>		<b>6.80%</b>

**Table 3**  
**Calculation of 2001 Value and Cost of Equipment Trust Certificates**

<b>Railroad</b>	<b>No. of Issues</b>	<b>Market Value (\$000)</b>	<b>Yield %</b>	<b>Weighted \$ Yield (\$000)</b>
BNSF Pre-2001 Issues <sup>1</sup>	13	\$477,866	6.08%	\$29,035.14
Issued in 2001	0			
Total	13	477,866	6.08%	29,035.14
CSX Pre-2001 Issues	17	757,043	6.16%	46,656.56
Issued in 2001	0			
Total	17	757,043	6.16%	46,656.56
NSC Pre-2001 Issues	13	375,942	6.05%	22,736.97
Issued in 2001	1	130,791	4.22%	5,519.38
Total	14	506,733	5.58%	28,256.35
UPC Pre-2001 Issues	7	237,954	5.91%	14,072.6
Issued in 2001	0			
Total	7	237,954	5.91%	14,072.6
<b>Composite Pre-2001 Issues</b>	<b>50</b>	<b>\$1,848,805</b>	<b>6.09%</b>	<b>\$112,501.3</b>
<b>Issued in 2001</b>	<b>1</b>	<b>130,791</b>	<b>4.22%</b>	<b>\$5,519.4</b>
<b>Total</b>	<b>51</b>	<b>1,979,596</b>	<b>5.96%</b>	<b>\$118,020.7</b>
<sup>1</sup> The BNSF figures are based on our adjustments to account for average rather than end of year values.				

**Table 4**  
**Calculation of 2001 Value and Cost of Conditional Sales Agreements**

<b>Railroad</b>	<b>Number of Issues</b>	<b>Market Value (\$000)</b>	<b>Current Cost</b>	<b>Weighted Cost</b>
CSX	2	\$130,975	6.52%	4.59%
UPC	5	54,863	5.65%	1.67%
<b>Composite</b>	<b>7</b>	<b>\$185,838</b>		<b>6.26%</b>

**Table 5**  
**Calculation of 2001 Value of Capitalized Leases & Miscellaneous Debt**

<b>Railroad</b>	<b>Capitalized Leases (\$000)</b>	<b>Miscellaneous Debt (\$000)</b>	<b>Total Other Debt (\$000)</b>
BNSF	\$704,615	\$786,651	\$1,491,266
CSX	135,000	133,512	268,512
NSC	209,327	146,870	356,197
UPC	1,438,000	337,176	1,775,176
<b>Composite</b>	<b>\$2,486,942</b>	<b>\$1,404,209</b>	<b>\$3,891,151</b>

**Table 6**  
**Calculation of 2001 Market Value of Debt**

<b>Type of Debt</b>	<b>Market Value of Debt (\$000)</b>	<b>Percentage of Total Market Value (Excluding Miscellaneous Debt)</b>
Bonds, Notes, & Debentures	\$22,829,455	91.34%
ETCs	1,979,596	7.92%
CSAs	185,838	0.74%
Subtotal	24,994,889	100.00%
Capitalized Leases/Miscellaneous Debt	3,891,151	NA
<b>Total Market Value of Debt</b>	<b>\$28,886,040</b>	<b>NA</b>

**Table 7**  
**Calculation of 2001 Flotation Cost For Debt**

<b>Type of Debt</b>	<b>Market Weight (Excludes Miscellaneous Debt)</b>	<b>Flotation Cost</b>	<b>Weighted Average Flotation Cost</b>
Bonds, Notes, & Debentures	91.34%	.16	0.146%
ETCs	7.92%	.13	0.010%
CSAs	0.74%	.13	0.001%
<b>Total</b>	<b>100.00%</b>		<b>0.157%</b>

**Table 8**  
**Calculation of 2001 Cost of Debt**

<b>Type of Debt</b>	<b>Percentage of Total Market Value (Excludes Miscellaneous Debt)</b>	<b>Debt Cost</b>	<b>Weighted Debt Cost (Excluding Miscellaneous Debt)</b>
Bonds, Notes, & Debentures	91.34%	6.80%	6.21%
ETCs	7.92%	5.96%	0.47%
CSAs	0.74%	6.26%	0.05%
<b>Subtotal</b>	<b>100.00%</b>	<b>-</b>	<b>6.73%</b>
Flotation Cost			.16%
<b>Weighted Average Cost of Debt</b>	<b>-</b>	<b>-</b>	<b>6.89%</b>
<b>Rounded to</b>			<b>6.9%</b>

**Table 9**  
**Calculation of 2001 Market Value and Weights of Common Equity**

<b>Railroad</b>	<b>Average Market Value (\$000)</b>	<b>Average Market Weight</b>
BNSF	\$11,095,519	28.68%
CSX	7,204,086	18.62%
NSC	7,056,935	18.24%
UPC	13,325,255	34.45%
<b>COMPOSITE</b>	<b>\$38,681,795</b>	<b>100.00%</b>

**Table 10**  
**Calculation of 2001 Dividend Yields for Common Equity**

<b>Railroad</b>	<b>Average Weight In Composite</b>	<b>Dividend Yield</b>	<b>Weighted Dividend Yield</b>
BNSF	28.7%	1.69%	0.49%
CSX	18.6%	2.24%	0.42%
NSC	18.2%	1.32%	0.24%
UPC	34.5%	1.49%	0.51%
<b>COMPOSITE</b>	<b>100.00%</b>		<b>1.66%</b>

**Table 11**  
**Calculation of 2001 Truncated Growth Rates**

<b>Railroad</b>	<b>Average Weight In Composite</b>	<b>Truncated Average Growth Rate</b>	<b>Contribution To Truncated Average Growth Rate</b>
BNSF	28.7%	9.20%	2.64%
CSX	18.6%	12.18%	2.27%
NSC	18.2%	10.56%	1.92%
UPC	34.5%	12.09%	4.17%
<b>COMPOSITE</b>	<b>100.00%</b>		<b>11.00%</b>

**Table 12**  
**Calculation of 2001 Nontruncated Growth Rates**

<b>Railroad</b>	<b>Average Weight In Composite</b>	<b>Nontruncated Average Growth Rate</b>	<b>Contribution To Nontruncated Average</b>
BNSF	28.7%	8.98%	2.58%
CSX	18.6%	14.45%	2.69%
NSC	18.2%	13.10%	2.38%
UPC	34.5%	12.16%	4.20%
<b>COMPOSITE</b>	<b>100.00%</b>		<b>11.84%</b>

**Table 13**  
**Computation of the 2001 Cost of Common Equity**

Dividend Yield	1.66%	
Dividend Yield Times 1+½ Growth Rate	1.75%	1.75%
Growth Rate		11%
<b>Cost of Equity</b>		<b>12.75%</b>
<b>Rounded to</b>		<b>12.80%</b>

**Table 14**  
**Computation of 2001 Cost & Market Value of Preferred Stock**

<b>Railroad</b>	<b>Div \$</b>	<b>Value Per Share</b>	<b>Div. Yield</b>	<b>Shares (000)</b>	<b>Market Value (\$000)</b>	<b>Market Weight</b>	<b>Weighted Yield</b>
NSC	2.60	38.39	6.77%	850.552	32,653	2.1%	0.14%
UPC	3.125	50.00	6.25%	30,000	1,499,995	97.9%	6.12%
<b>COMPOSITE</b>					<b>\$1,532,648</b>	<b>100.0%</b>	<b>6.28%</b>
<b>Rounded to</b>							<b>6.3%</b>

**Table 15**  
**Computation of 2001 Capital Structure Mix**

<b>Type of Capital</b>	<b>Market Value (\$000)</b>	<b>Weight</b>
Debt	\$28,886,040	41.80%
Preferred Equity	1,532,648.0	2.22%
Common Equity	38,681,795	55.98%
<b>TOTAL</b>	<b>\$69,100,483</b>	<b>100%</b>

**Table 16**  
**2001 Cost of Capital Computation**

<b>Type of Capital</b>	<b>Cost (Rounded)</b>	<b>Weight</b>	<b>Weighted Average</b>
Long-Term Debt	6.9%	41.8%	2.88%
Preferred Equity	6.3%	2.2%	0.14%
Common Equity	12.8%	56.0%	7.17%
<b>COMPOSITE COST OF CAPITAL</b>		<b>100.0%</b>	<b>10.19%</b>
<b>ROUNDED TO</b>			<b>10.2%</b>